In the Claims:

1.(Original) A biopsy device comprising:

a hollow biopsy needle having a lateral tissue receiving port;

a hollow cutter advancable within the biopsy needle;

a first mechanism for advancing the cutter to a position proximal of the lateral tissue receiving port; and

a second mechanism for advancing the cutter distal of said position proximal of the lateral tissue receiving port.

2. (original) The biopsy device of claim 1 wherein the first mechanism employs a pressure differential for advancing the cutter.

3. (original) The biopsy device of Claim 1 wherein the first mechanism employs pneumatics.

4. (original) The biopsy device of Claim 1 wherein said second mechanism rotates and advances said cutter.

5. (original) The biopsy device of Claim 1 wherein the first mechanism advances the cutter at first rate, and wherein the second mechanism advances the cutter at a second rate.

6. (original) The biopsy device of Claim 5 wherein the first rate is different from the second rate.

7. (original) The biopsy device of Claim 5 wherein the first rate is greater than the second rate.

8. (withdrawn)A biopsy device comprising:

a hollow biopsy needle having a lateral tissue receiving port;

a hollow cutter advancable within the biopsy needle;

a first cutter drive for advancing the cutter to a first position within the hollow biopsy needle;

a second cutter drive for advancing the cutter to a second position within the hollow biopsy needle.

9. (withdrawn) The biopsy drive of Claim 8 wherein the first drive comprises a pneumatic drive.

10. (withdrawn)The biopsy device of Claim 8 wherein the second drive is non-pneumatic.

11. (withdrawn)The biopsy device of Claim 10 wherein the non-pneumatic drive advances the cutter to a position distal of the lateral tissue receiving port.

12. (withdrawn)The biopsy device of Claim 10 wherein the non-pneumatic drive translates and rotates the cutter.

13. (withdrawn)The biopsy device of Claim 8 wherein the first drive advances the cutter at a first speed, and wherein the second drive advances the cutter at a second speed less than the first speed.

14. (withdrawn)A biopsy device comprising:

a hollow needle comprising a tissue receiving port; and
an assembly comprising a hollow cutter coupled to a fluid actuator
for advancing the hollow cutter at least part way within the hollow needle;
wherein the cutter is rotatable relative to the fluid actuator.

15. (withdrawn)The device of Claim 14 wherein the fluid actuator is a piston.

16. (withdrawn)The device of Claim 15 wherein the piston is pneumatically driven.

17. (withdrawn)The device of Claim 15 wherein the piston does not rotate.

18. (withdrawn)The device of Claim 14 further comprising a motor for providing rotation of the cutter.

19. (withdrawn)The device of Claim 14 wherein the fluid actuator advances the cutter to a first position, and wherein the device further comprises a motor for rotating the cutter while advancing the cutter to a second position.

20. (withdrawn)A method for operating a biopsy device comprising the steps of:

providing a hollow biopsy needle having a tissue receiving port;
providing a cutter for severing tissue;
drawing tissue into the tissue receiving port;
providing a pressure differential for advancing the cutter within the biopsy needle to a first position proximal of the tissue receiving port; and
advancing the cutter to a position distal of the receiving port without using the pressure differential to advance the cutter.

21. (withdrawn)The method of Claim 20 comprising advancing the cutter to the first position pneumatically.

22. (withdrawn)The method of Claim 20 comprising advancing the cutter to the first position at a first speed, and advancing the cutter to sever tissue at a second speed less than the first speed.

23. (withdrawn)The method of Claim 20 comprising advancing the cutter mechanically to sever tissue.

24. (withdrawn)The method of Claim 23 further comprising the step of rotating the cutter while advancing the cutter to sever tissue.

25. (withdrawn)A method for operating a biopsy device comprising the steps of:

providing a hollow biopsy needle having a tissue receiving port;
providing a cutter for severing tissue;
drawing tissue into the tissue receiving port;
providing a pressure differential for advancing the cutter within the biopsy needle at a first speed to a first position proximal of the tissue receiving port; and

advancing the cutter to a position distal of the receiving port at a second speed different from the first speed.

26. (withdrawn)The method of Claim 25 wherein the second speed is slower than the first speed.

27. (withdrawn)The method of Claim 25 comprising rotating the cutter while advancing the cutter at the second speed.

28. (New). The biopsy device of Claim 1 wherein at least one of the first and second mechanisms comprises a piston.

29. (New ) The biopsy device of Claim 28 wherein the piston is non-rotating.

30. (New) The biopsy device of Claim 1 wherein the first mechanism advances the cutter without rotation of the cutter, and wherein the second mechanism advances and rotates the cutter.

31.(New) The biopsy device of Claim 1 wherein the second mechanism advances the cutter from a position proximal of the tissue receiving port to a position distal of the tissue receiving port.

32.(New) A biopsy device comprising:

a hollow biopsy needle having a lateral tissue receiving port;

a hollow cutter advancable within the biopsy needle, the hollow cutter having an open distal end;

a first mechanism for advancing the distal end of the cutter to a position proximal of the lateral tissue receiving port; and

a second mechanism for advancing the distal end of the cutter to a position distal of the lateral tissue receiving port.